

Page 3, line 3 from the bottom, change "rapid" to --rapidly-

Same page, line 2 from the bottom, delete "and".

Page 12, line 5, change "2V" to --2V_e--.

IN THE CLAIMS:

1. (Amended) In a global positioning system (GPS) in which a plurality earth orbiting GPS satellites transmit position information to mobile radio stations on earth including a Satellite Data Message block, the improvement comprising:

an earth based source of satellite [position] data for all in-view GPS satellites including said Satellite Data Message blocks for each in-view satellite for assisting said mobile radio station to access position information from said satellites, and an earth based communication [channel] means coupled to said source,

means coupled to said mobile radio station for connecting to said earth based communication [channel] means to said earth-based source for extricating said satellite position data via said non-satellite earth based communication [channel] means, and means at said mobile for processing said Satellite [position] Data Message blocks from said earth-based source to enable said mobile radio station to rapidly locate and access position information from said earth orbiting satellite.

~~Cancel claims 2, 3, 4 and 5.~~

Rewrite claim 3 as follows:

9. ~~11.~~ In a GPS satellite positioning system in which a plurality of earth orbiting GPS satellites each transmit Satellite Data Messages, including ephemeris data and time models, said Satellite Data Messages being transmitted in a frequency uncertainty band, the method of optimally and rapidly acquiring all in view satellites comprising:

providing a receiver for said GPS satellite having a local oscillator,

performing a parallel search over the entire frequency uncertainty band to acquire an overhead GPS satellite,

calibrating said receiver local oscillator to reduce the frequency band for the acquisition of subsequent in-view satellites, and

performing a further parallel search for all in-view satellites using a single frequency search cell per in-view satellite.

Rewrite claim 4 as follows:

10. ~~12.~~ In a method for determining the position of a user of a GPS receiver for receiving GPS satellite signals containing GPS broadcast data, bit sync signals and frame sync signals, the improvement comprising, providing an independent source of a prior ~~X~~ knowledge of receiver position to resolve ambiguity in the time position of the GPS solution.
AC 4/12/97

Rewrite claim 5 as follows:

11 ~~13.~~ In a GPS satellite positioning system for use in obstructed environments where much of the time, the line of site to most satellites is blocked and occasionally is clear, as on roads and urban areas or in heavily forested regions, comprising, providing a GPS receiver having a calibratable local oscillator and capable of performing parallel search for acquisition of all in-view satellites, comprising:

performing a parallel search for all in-view satellites, and reducing the frequency uncertainty band for signal reacquisition to one frequency cell by calibrating the GPS local receiver oscillator on the basis of a pseudo-range measurement of one overhead satellite.

Cancel claim 6.

Add the following claims:

2 ~~14.~~ The invention defined in claim 1 wherein said earth-based source includes one or more dial-up service channels selected from a data link supported by terrestrial cellular telephone and other radio packet data services, and means accessing said earth-based source via one of said dial-up service channels to supply said Satellite Data Messages for all in-view satellites and said GPS receiver.

3 *2*
15. The invention defined in claim 14 in which said

Satellite Data Message block contains ephemeris data and time models for each in-view satellite, said mobile radio station including a receiver local oscillator and means for performing a parallel search over an entire frequency uncertainty band to acquire a GPS satellite overhead and calibrating said receiver local oscillator to reduce the frequency band for the acquisition of subsequent in-view satellites, and performing a further parallel search for all in-view satellites using a single frequency search cell per satellite.

4 *2*
16. The invention defined in claim 14 including a basestation for a cordless cellular telephone handset, an RF control means for remote control of said handset, an RF interface means connected to said handset to said RF control means, said handset being coupled to said GPS receiver, and modem means located in the mobile unit, whereby access to said handset provides access to the full range of capabilities, including, generation and relay of position, supported by the mobile unit.

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1. (Amended) In a GPS system wherein a plurality of GPS satellites transmit[s] their respective time and location data including a Satellite Data Message block having ephemeris and time modes over radio frequency signals which enable a mobile GPS receiver on the ground receive said radio frequency signal to determine its position, the improvement [including] comprising: a

source of satellite data message block containing the ephemeris and time modes of the GPS satellites, which is independent of said satellite, an independent wireless data channel for accessing said satellite data message block, and a controller means connecting said satellite data message [data] block to said mobile GPS receiver.

7 6
9. (Amended) The invention defined in claim 8 wherein said cellular telephone [base is] includes a cordless handset and further including a basestation relay means for said cordless handset for allowing remote use of said handset via said basestation relay means.

8 6
10. (Amended) The invention defined in claim 8 including a pushbutton controlled RF control signal source, means for coupling control signals to said controller means to cause said mobile GPS receiver to determine its position and transmit, via said cellular telephone, the determined position to a predetermined location.

REMARKS

The informalities noted in the Abstract, Specification and Drawings have been corrected by the above amendments.

The objections to claims 1 and 7-10 have been corrected by amendment. The subject matter of claim 2 has been incorporated into claim 1 and claims 2 and 6 have been canceled. Claims 4 and 5 have been rewritten as claims 11 and 12, and new claims 14-15